Braceros
Health

PRELIMINARY REPORT REGARDING
SUDDEN "UNEXPLAINED" DEATHS AMONG BRACEROS

I
The Cases

Post-mortem reports of ten cases have been received to date, and sufficient information on four other cases is available to include them in this category. There are additional cases reported to have occurred.

All of the fourteen deaths took place in California among braceros, that is, Mexican Nationals who legally enter this country on contract for work in agriculture.

In all but one case the bracero died during the night, apparently in sleep. In most instances, he had no known complaints about his health and went about his usual activities the day preceding death.

These deaths were isolated from each other in terms of time and place, and were not known to be associated with epidemics of illness among fellow workers.

Place and year of occurrence

Table I

Year	Total	County			
		Ventura	Santa Clara	Santa Barbara	San Mateo
1955	4	2	1	1	0
1956	7	3	1	2	1
1957	3	1	2	0	0
Total	14	6	4	3	1

Month of occurrence

Nine deaths occurred May through August, five scattered throughout the rest of the year.

Age

Range - 23-46 years
Average - 32 years.

Cause of death listed on certificate

Two cases - "undetermined" only entry
Three cases - immediate cause of death listed "due to causes unknown"
Nine cases - a variety of causes listed.

(In many of the nine cases where the autopsy report is on hand, it indicates that there is doubt as to the actual cause of death.)

The autopsy reports (ten cases)

Gross and microscopic pathology of a fairly substantial nature was described most often (in this approximate order) in the lungs, liver, spleen, pancreas, adrenals, brain, and kidneys. The heart, great vessels, and the digestive tract were most often free of remarkable findings.

In all instances the external examination of the deceased revealed no signs of violence.

II
The Braceros

Mexican laborers may legally enter the United States for temporary work in agriculture through the provisions of Public Law No. 78 administered by the U.S. Labor Department. Most of the following information was obtained from this Department.

In 1956 about 450,000 braceros entered the U.S. Of these, 165,000 or 36 percent entered California. Each contract covers a maximum period of eighteen months.

In 1956, braceros population was highest in the following ten counties in approximately this order: Imperial, San Joaquin, Monterey, San Diego, Ventura, Riverside, Orange, Sutter, Santa Clara, and Solano.

Braceros range from age eighteen up. There is no upper age limit, the only criterion is that they be fit for hard labor.

Braceros are examined in Mexico at the Migratory Station by Mexican physicians, and are selected on the basis of freedom from contagious disease and fitness for hard labor. Smallpox vaccinations are also administered here. At the border: (1) disinfestation is accomplished with 1 percent lindane, (2) examinations for venereal disease are made and treatment given if indicated, and (3) 70 mm chest photofluorography is done and candidates rejected if tuberculosis or other disabling disease is found.

Serious illnesses experienced by braceros while in the U.S. are primarily gastrointestinal infections and pneumonia.

Based on available data (which may not be complete), there were 162 deaths among braceros in 1956 in the U.S. Of these deaths, 80 or almost 50 percent occurred in California. About 63 percent of the California deaths were due to accidents or violence, while the remaining 30 deaths (37 percent) were apparently due to natural causes.

Summary

In 1956 California received a high proportion of braceros entering the U.S. to work on farms (36 percent). Of the deaths occurring in this group, a greater proportion occurred in California than would be expected (50 percent).

Of the thirty apparently natural deaths which occurred among braceros in

California in 1956, seven appear (so far) in our series of "unexplained" deaths--about 23 percent.

III
Reports of Other Sudden Unexpected Deaths in Young Males

Of the reports in the medical literature which deal with this subject, there is a paper from the Army Institute of Pathology by Moritz and Zamcheck appearing in 1946 in the Archives of Pathology. About 1,000 autopsy protocols of sudden, expected natural deaths among young soldiers were analyzed. A comparison of the most important causes of death found here with the bracero cases might be of interest. See Table II.

In the medical and lay literature from the Philippines and Hawaii are a series of articles which describe sudden unexpected deaths among young Philippino laborers. Thirty such cases were reported in the City of Manila in 1955, and a total of 120 from Hawaii are on record.

The victims are young robust men with no prior illness, who retire usually after a heavy meal and die during sleep. While asleep, they are heard to cough, groan, or yell. Because the Philippinos believe that these men die during a nightmare, the term "dream deaths" or the Philippino word "bangungut," meaning nightmares, is applied to them.

The cause of these deaths is unknown, although many theories have been advanced to explain them. Autopsy findings are fairly uniform and provide no cause of death.

There have been reported sudden deaths among infants and occasionally adults in which the victims succumbed to an infection which would not be expected to cause death. It was found that lack of gamma globulin, a protein fraction of the plasma which is concerned with disease antibody production, was the basis for the individual being unable to deal with infections. Agammaglobinemia is considered very rare among natives of this country. Its incidence among Mexicans has apparently not been studied (or at least no reports on the subject have been found so far). There is a laboratory test by which this condition can be detected.

IV
Poisoning

No fatal poisonings among braceros were reported in California in 1956. In 1951, a bracero who applied concentrated tetraethylpyrophosphate (TEPP), an organic phosphate insecticide, to rid himself of lice, died very quickly.

In 1955 there were two fatalities among Mexican workers (available records do not indicate whether or not they were braceros) who ate a poisonous plant. They picked Nicotina Glauca, cooked and ate it, apparently mistaking it for pokeweed.

The following is a list of poisons which might be considered in the investigation of "unexplained deaths":

The alcohols--ethanol, methanol, isoprapyl alcohol (rubbing alcohol);
Narcotics, sedatives, and other medicines (home remedies, herbs, etc. are reported to be popular among braceros);

Table II

Comparison of Bracero Cases With
Sudden Deaths Among Young Soldiers

Causes of 1,000 sudden, unexpected, natural deaths among U.S. soldiers age 18 - 40 years* (autopsy)		Comparisons from autopsy reports of 10 bracero cases
Cause of Death	Percent of cases	
Organic Heart Disease (mostly coronary sclerosis)	20 - 30%	Autopsy reports indicate that the examinations done would have readily detected most heart conditions.
Non-traumatic intracranial hemorrhage	9%	Ruled out in the six of the ten cases (brain not examined in four cases).
Meningococcemia	11%	Not ruled out in the bracero cases and may have been a good possibility in at least one case. (Diagnosis requires bacteriological exam of blood and spinal fluid for meningococcus.)
Cause not disclosed by complete autopsy and toxicological exams	14%	(If California coroners can explain more than 86% of their sudden unexpected deaths, they are doing better than the Army.)
Miscellaneous Causes**	20 - 40%	
1. respiratory infections (biggest group)		In two cases bronchopneumonia was given as the immediate cause of death.
2. diabetic coma		Not ruled out in any of the cases.
3. epileptic seizure		Probably not ruled out in any of the cases.
4. encephalitis & meningitis (except meningococcal)		Probably ruled out in 6 of the 10 cases (brain not examined in 4 cases).
5. acute hemorrhagic pancreatitis		One of the descriptions of the pancreas notes a hemorrhage, another, necrosis.
6. acute yellow atrophy of the liver		Although both acute and chronic hepatitis were noted in several instances, no acute atrophy described.
7. aortic rupture, tumors, pulmonary emboli		Probably ruled out in all cases.

* Moritz, A. R., Zamcheck, N.: Sudden unexpected deaths among young soldiers, Arch. Path. 42:459, 1946

**Not all the miscellaneous causes listed in the article are included here

Poisonous foods (mushrooms, Shellfish, plants);
Carbon monoxide;
Toxic agricultural chemicals (particularly the organic phosphates, tetraethylpyrophosphate, parathion, Systox, Phosdrin and others).

The appraisal of the environment and recent activities of the deceased is particularly important in the diagnosis of a chemical death in order to find out what poisons to look for. Also, chemical deaths often do not reveal gross pathology, and specific laboratory tests for the chemical in question are necessary to confirm t the diagnosis.

Summary

1. A series of at least fourteen sudden, unexpected deaths have occurred among young braceros in California during the last two and a half years. Autopsy examinations have not provided an adequate explanation of the cause of death in most instances. In all but one case the death occurred at night.

2. For 1956 these deaths comprise about one-fourth of the apparently natural deaths among braceros in California.

3. In 1956 there appeared to be a proportionately greater number of deaths in California than would be expected on the basis of the number of braceros entering this State as compared with other states.

4. A comparison of ten of the bracero autopsy reports with reports of sudden unexpected deaths among young soldiers indicates that there are causes of sudden death which apparently have not been ruled out in the bracero cases.

5. Sudden, unexpected deaths have been reported among young Philippino laborers who die in their sleep. Autopsy examinations do not explain these deaths. In the series of sudden deaths among soldiers, about 14 percent were unexplained in spite of careful post-mortem examinations.

6. The foregoing information is presented to the convention of California Coroners to raise questions concerning the desirability and practicability of the State Associations of Coroners, the State Health Department, and possibly other interested organizations jointly considering an organized approach to the study of any similar bracero cases occurring here in the future.

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